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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,870	02/19/2004	Shih-Hsiung Li	VX042593	1977
21369	7590	11/01/2005		
POSZ LAW GROUP, PLC 12040 SOUTH LAKES DR. SUITE 101 RESTON, VA 20191			EXAMINER STONE, JENNIFER A	
			ART UNIT 2636	PAPER NUMBER

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No. ✓

10/780,870

Applicant(s)

LI, SHIH-HSIUNG

Examiner

Jennifer A. Stone

Art Unit

2636

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The definition or even a description of "night light" is not disclosed in the specification. In addition, Applicant admits (page 8, specification) that a night light is "standard" equipment on the trailer; however, prior art does not indicate any such "standard" equipment. Examiner will define night light as any illumination device.

3. Claim 1 recites the limitation "the distance data" in line 9. There is insufficient antecedent basis for this limitation in the claim.

4. Claim 6 recites the limitation "the operation cycle of the transceivers" in line 6. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claims 1-6 and 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rennick et al. (US 2005/0128060) and further in view of Gunderson et al. (US 6,268,803).

For claim 1, Rennick discloses an ultrasonic detector installable on a truck trailer fitted with a night light (paragraph 0032, lines 4-11; parag 0033, lns 1-3; parag 0044, lns 5-10; parag 0046, lns; parag 0052, ln 1; Fig. 4A, item 50; Fig. 5, items 54, 55; Fig. 7, items 81, 75), comprising a console unit (Fig. 4A, item 50; Fig. 7, item 75) and at least one ultrasonic detection unit (Fig. 3, items 28, 31, 33, 34; parag 0039, lns 5-10); wherein the at least one ultrasonic detection unit emits ultrasonic waves, receives reflected wave signals, and provides signals to the console unit from the at least one ultrasonic detection unit (parag 0039, lns 8-11), and then determines whether to activate an alarm to warn the driver of a reducing distance between the truck trailer and any object (parag 0039, lns 13-19). It would have been obvious to one of ordinary skill in the art, at the time the invention was made that the wave signals are received within a predetermined period of time so that a decision is made by the control unit whether to indicate to the driver an indication of an object (parag 0039, lns 13-17). In addition, Rennick does not disclose converting wave signals to pulse signals and generating the distance data displayed through a digital display; however, Gunderson discloses these features (col 4, lns 60-63; Fig. 4a; col 7, lns 61-67; col 8, lns 1-7). It would have been obvious to generate distance displayed on a digital display so that a truck trailer driver is provided with accurate distance data between the trailer and the object.

For claim 2, Rennick discloses an ultrasonic detector wherein the ultrasonic detection unit has a controller chip, multiple transceivers, a second RF interface, a second cable interface, a storage battery, and a recharge circuit (parag 0058, Ins 1-5; parag 0060; parag 0063; Fig. 12, items 540, 28, 31, 33, 34, 125, 130, 135, 133, 121). The local (first) interface 125 communicates to the second RF interface (135) and second cable interface (133) and considered the first interface, for it provides initial communication with the RF and cable interfaces.

For claim 3, Rennick discloses the cable interface of the console unit and the cable interface of the at least one ultrasonic detection unit are to be interconnected by a cable for bidirectional communication (Fig. 12, items 125, 130, 133).

For claim 4, the RF interface of the console unit and the RF interface of the at least one ultrasonic detection unit are used for establishing radio frequency communication (Fig. 11, items 114, 116; Fig. 12, items 130, 125, 135; parag 0058).

For claim 5, Rennick discloses the console unit has a microprocessor that is connected to an alarm, a display, a first RF interface and a first cable interface (Fig. 12, items 124, 130, 125, alerting devices; parag 0062, Ins 7-12; parag 0063). In addition, the claim is interpreted and rejected for the same reasons as stated in the rejection of claim 1, regarding the digital display.

For claim 6, Rennick discloses the controller chip of the at least one ultrasonic detection unit is connected to the brake light of the vehicle to obtain necessary control signals to initiate the operation cycle of the transceivers (parag 0052, last 5 lines). Even though Rennick does not disclose a special connector, it is obvious that a wiring

connection is used in order for the controller to communicate with the brakes or brake light.

For claim 8, Rennick does not disclose a seven-segment digital LED display; however, Gunderson discloses this feature (col 16, Ins 50, 51; Fig. 4a, item 22). It would have been obvious to disclose a seven-segment digital LED display to indicate an alarm condition to an individual within the truck trailer.

For claim 9, Rennick does not disclose a digital LCD display; however, Gunderson discloses this feature (col 6, Ins 1-4). It would have been obvious to disclose an LCD display to indicate an alarm condition to an individual within the truck trailer.

For claim 10, Rennick discloses the recharge circuit of the ultrasonic detection unit is coupled to the night light on the truck trailer, through which the storage battery gets recharged using electricity from the night light of the truck trailer (parag 0044, Ins 5-12; parag 0060). In addition, the claim is interpreted and rejected for the same reasons as stated in the rejection of claim 6, regarding the special connector.

For claim 11, the claim is interpreted and rejected for the same reasons as stated in the rejection of claim 6, regarding the special connector. In addition, each ultrasonic detection unit has the second cable interface (parag 0047), the storage battery (Fig. 12, item 121; parag 0060) and the recharge circuit respectively connected to a communication cable (Fig. 12, item 125), a brake light and a night light of the truck trailer (parag 0044, Ins 5-12; parag 0052, last 5 lines).

For claim 12, Rennick discloses each ultrasonic detection unit has the second cable interface, the storage battery, and the recharge circuit respectively connected to a communication cable, a brake light and night light of the truck trailer through a wiring connection (parag 0044, Ins 5-12; parag 0052, last 5 lines; parag 0060; parag 0063; Fig. 12. In addition, the claim is interpreted and rejected for the same reasons as stated in the rejection of claim 6, regarding the special connector.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rennick et al. (US 2005/0128060) and Gunderson et al. (US 6,268,803), and further in view of Nishimoto et al. (US 6,492,902).

Rennick discloses an alarm, but not an alarm buzzer (parag 0042, Ins 5-12). However, Nishimoto discloses this feature (col 4, Ins 36-40). It would have been obvious to disclose an alarm buzzer so that a driver hears an alarm while visually focusing on the roadway.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Paranjpe (US 6,696,931) discloses ultrasonic object detectors for detecting hazardous objects around a vehicle and measuring the distance between a hazardous object and a vehicle.

Studt et al. (US 6,594,614) discloses ultrasonic object detectors on the rear of a vehicle that measure the distance between the vehicle and the detected object.

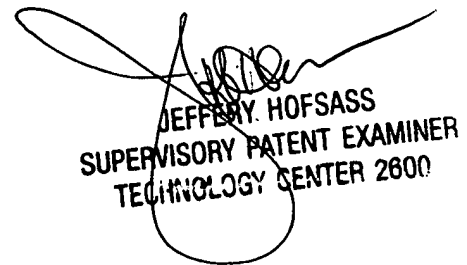
Gunderson et al. (US 2003/01451965) discloses ultrasonic object detectors for a truck trailer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A Stone whose telephone number is (571) 272.2976. The examiner can normally be reached on M-F from 8:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Hofsass, can be reached at (571) 272.2981. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jennifer Stone  
October 17, 2005

  
JEFFREY. HOFSSASS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600